CLAIMS

1. A method for extracting feature quantities of a binary image for extracting feature quantities such as an area, a circumferential length, end points, a center of gravity, and a moment of an image area by scanning, by a raster scanning method or the like, image data that is a binary image to be displayed in one frame, characterized by comprising the steps of:

checking a content of each of a pixel immediately preceding the detected pixel on the same line and a pixel that is on an immediately preceding line and right above the detected pixel when a pixel having a prescribed density is detected in scanning one line of image data;

inheriting an area number of the one image area when the detected pixel belongs to the same image area as one of the above pixels;

performing the above processing sequentially on succeeding pixels to store resulting image data in a line buffer;

scanning the line buffer in a reverse direction and modifying the different area numbers to the same area number when consecutive pixels belong to respective image areas but have different area numbers after the scanning of the one line has completed; and

repeating the same line scanning to a last line of one frame to store feature quantities for each image area.

2. A method for extracting feature quantities of a binary

image according to claim 1, comprising the steps of:

checking a content of each of a pixel immediately preceding the detected pixel on the same line and a pixel that is on an immediately preceding line and right above the detected pixel when a pixel having a prescribed density is detected in scanning one line of the image data; and

inheriting an area number of the image area of the pixel right above the detected pixel with priority given to it when the detected pixel belongs to image areas of both of the above pixels.

Sub B1 3. A method for extracting feature quantities of a binary image according to any one of claims 1 and 2, further comprising a step of performing scanning one line of the image data to provide N pixels (N being an integer greater than or equal to 1) that follows an image area having a prescribed area number that has just terminated as semi-image areas of an adjacent image area.

4. A method for extracting feature quantities of a binary image according to any one of claims 1 and 2, further comprising a step of performing scanning one line of the image data to provide N pixels (N being an integer greater than or equal to 1) that follows an image area having the same area number that has just terminated as semi-image areas of an image area that is adjacent from right above when the image area having a prescribed area number terminated at the pixel that is located right above on an immediately preceding line.

5. A method for extracting feature quantities of a binary image according to any one of claims 3 and 4, further comprising a step of scanning the line buffer in a reverse direction and modifying the different area numbers to the common area number when consecutive pixels belong to respective image areas and semi-image areas but have different area numbers after the scanning of the one line has completed.

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